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A STUDY OF EMPLOYMENT OPPORTUNITIES IN OFF-FARM AGRICULTURAL OCCUPATIONS IN ALABAMA.

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THE PURPOSE OF THE STUDY WAS TO ASCERTAIN THE NATURE AND EXTENT OF OFF-FARM AGRICULTURAL EMPLOYMENT OPPORTUNITIES IN THE STATE. BUSINESS FIRMS, OCCUPATIONS, OCCUPATIONAL CHARACTERISTICS, AND METHODS OF RECRUITMENT WERE IDENTIFIED. THE SAMPLES OF BUSINESS FIRMS WAS SELECTED FROM 20 SAMPLE COUNTIES. INTERVIEWERS CONTACTED 545 OF THE 638 FIRMS IN THE SAMPLE OF WHICH 87 PERCENT WERE PAYROLL FIRMS. THERE WERE 5,443 AGRICULTURAL BUSINESSES, INDUSTRIES, AND SERVICES OF 18 DIFFERENT TYPES OPERATING IN THE STATE. IN THE FIRMS CONTACTED, 16,983 PERSONS WERE EMPLOYED, WITH 4,204 ENGAGED IN OFF-FARM AGRICULTURAL OCCUPATIONS. THE MAIN CATEGORIES OF FIRMS EMPLOYING MOST PERSONNEL IN OFF-FARM AGRICULTURAL OCCUPATIONS WERE (1) FARM MACHINERY SALES AND SERVICE, (2) COTTON PROCESSING, SALES, AND WAREHOUSING, AND (3) FARM SUPPLY RETAIL STORES. THE CATEGORIES EMPLOYING THE FEWEST WERE FOOD PROCESSING AND DISTRIBUTION, DAIRY PRODUCTS MANUFACTURERS AND DISTRIBUTORS, MEAT PROCESSING AND WHOLESALE, AGRICULTURAL CHEMICAL MANUFACTURERS AND WHOLESALE, AND LUMBER AND WOOD PRODUCTS. THERE WERE 184 DIFFERENT OFF-FARM AGRICULTURAL OCCUPATIONS. AN 8 PERCENT INCREASE IN EMPLOYMENT OPPORTUNITY WAS PROJECTED FOR 5 YEARS HENCE. PROJECTION OF FIGURES FROM THE SAMPLE TO THE STATE POPULATION WOULD PLACE THE NUMBER OF PERSONS EMPLOYED IN OFF-FARM AGRICULTURAL OCCUPATIONS AT 49,447. THE STUDY INDICATED A NEED FOR (1) BROADENING THE VOCATIONAL AGRICULTURE PROGRAM, (2) IMPROVING COMMUNICATIONS BETWEEN VOCATIONAL AGRICULTURE AND EMPLOYERS, (3) INSTRUCTION TO ACQUAINT STUDENTS WITH EXISTING EMPLOYMENT OPPORTUNITIES, (4) CONTINUING STUDY OF OPPORTUNITIES, AND (5) MORE TEACHER RESPONSIBILITY FOR PLACEMENT. (JM)

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Montgomery, Alabama

and

School of Education
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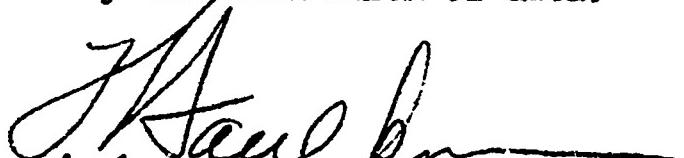
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A STUDY OF EMPLOYMENT OPPORTUNITIES
IN OFF-FAARM AGRICULTURAL
OCCUPATIONS IN ALABAMA¹

INTRODUCTION

In the United States today, approximately 10,000 secondary schools offer courses in Vocational Agriculture. These schools with 11,000 teachers provide systematic instruction to approximately 12,000 students. In contrast to national figures, there are approximately 22,800 students enrolled in vocational agriculture classes in Alabama.

Since the passage of the Smith-Hughes Act in 1917, programs of instruction in vocational agriculture have been largely designed to train persons for farming. Rapid technological advances in agricultural production have caused shifts in jobs formerly conducted on the farm to those performed in off-farm locations.

Agriculture has changed and is continuing to change rapidly. No longer does it describe only the people engaged in production agriculture, but it now includes off-farm agricultural occupations. Approximately ten per cent of Alabama labor force are farmers and farm workers while thirty per cent are processors, handlers and distributors of farm and forest products. Others are employed in agricultural education, research and services. It is important that educational programs in agriculture prepare a sufficient number of

¹Part one of a two part study

competent people for these agricultural occupations. Many of the agricultural competences needed by the worker in off-farm agricultural occupations could be developed or partly developed in the secondary school programs of vocational agriculture.

Purposes of the Study

The central problem of the study was to ascertain the nature and extent of off-farm agricultural employment opportunities. The study involved the collection and analysis of data on positions being held by individuals in businesses, industries and agencies of an off-farm agricultural nature.

The following research problems were investigated in the attempt to resolve the central problem of the study:

A. What are the agricultural businesses, industries and services in Alabama by main product or service categories in:

1. farm machinery;
2. farm supplies and equipment;
3. poultry and livestock industries;
4. crop, forestry and conservation;
5. ornamental horticulture, recreation, and wildlife;
6. farm service and
7. professional occupations in agriculture?

B. What are the off-farm agricultural occupations existing in the categories of:

1. farm machinery;
2. farm supplies and equipment;
3. poultry and livestock industries;
4. crops, forestry, and conservation;
5. ornamental horticulture, recreation, and wildlife;
6. farm service and
7. professional occupations in agriculture?

- C. What is the nature and extent of employment opportunities in off-farm agricultural occupations?
- D. What are the occupational characteristics of off-farm agricultural occupations?
- E. What are the methods used by businesses, industries, agencies and services in recruiting employees for off-farm agricultural employment?

Definition of Terms

The terms "off-farm agricultural occupations," "agricultural business" or "agricultural industry" used in the study refer to those occupations, businesses and industries that provide supplies and services to those individuals producing plants and animals. These plants and animals include those used for feed, food, fiber, shelter and pleasure. There were two primary factors considered in the classifying of the off-farm agricultural occupations, agricultural businesses and agricultural industries. The factors of a delimiting nature were: (1) what the worker did was the criterion used in classifying the occupation, not where the worker worked and (2) the agricultural businesses and industries were those businesses and industries that existed primarily for the purpose of providing supplies and services, either directly or indirectly, to those individuals producing plants and animals.

The term "mean," commonly called the average, refers to the sum of a series of numbers or measures divided by the number in the series.

The term "median" refers to the midpoint or middle number or measure in a series of numbers.

The term "mode" refers to the number or measure that occurs most frequently in a series of numbers or measures.

The term "average," although not used in this report, is a popular term used to express the arithmetical mean. In statistics however, "average" is the general term used for expressing any measure of central tendency; it could be either the mean, median or mode. Thus the term "average" has not been used in the writing of this report.

The term "range" refers to variability and is used in this report to reflect the lowest to highest measure.

The term "sample counties" refers to twenty counties selected at random from the counties in state from which the sample of businesses and industries contacted were drawn.

The term "contact sample" refers to the random percentage sample of the total businesses and industries in the twenty sample counties.

The Data

Data for the study were obtained from selected agricultural businesses, industries, agencies and services in the state; department heads of the School of Agriculture, Auburn University and division heads of the State Departments of Agriculture and Industries.

The sample of business and industries contacted in the study were selected at random from individual county listings of agricultural

business and industries of twenty sample counties. The sample counties were selected at random from a population stratification by vocational agriculture supervisory districts. The counties in each district were stratified into population units of less than 25,000, 25,000 to 50,000 and 50,000 and above. Two counties were selected at random from the less than 25,000 category and one county from the 25,000 to 50,000 category in each of the five supervisory districts. Jefferson, Etowah, Montgomery and Mobile counties were selected from the 50,000 and above category due to their metropolis areas. One county in the central supervisory district was selected at random from the 50,000 and above category to make a total of twenty counties.

Procedure Used In Conducting The Study

The following procedure was followed in conducting the study:

1. Defined and clarified the terms off-farm agricultural occupation, agricultural business and agricultural industry.
2. Tentatively categorized off-farm agricultural occupations, businesses, and industries into seven broad categories.
3. Prepared a partial listing by categories of the off-farm agricultural occupations, businesses, and industries.
4. Prepared a list indicating sources of listings of agricultural companies, firms, organizations, agencies and services in Alabama.
5. Prepared forms to be used by teachers of vocational agriculture for the reporting of county agricultural companies, firms, organizations, agencies and services.
6. Categorized counties in the state by population.
7. Selected at random from the population stratification,

sixteen sample counties to be included in the study, excluding Jefferson, Etowah, Montgomery and Mobile.²

8. Secured from state and federal agencies listings of county personnel engaged in off-farm agricultural occupations.
9. Held meetings in each supervisory district with the teachers of vocational agriculture in the selected counties to explain the mechanics of the study and the methods and procedures to follow in securing the county listings of agricultural companies, firms, organizations, agencies and services.
10. Designed and pre-tested the instrument to be used by teachers of vocational agriculture in the interviewing the owners, managers, personnel directors and/or supervisors of the businesses, industries and services.³
11. Selected an "nth" random contact sample of the businesses, industries and services to be interviewed in each county from the county listings.
12. Held meetings in each supervisory district with teachers of vocational agriculture to explain the mechanics and techniques to be used in conducting of interviews and assign contacts to be made by each teacher.
13. Interviewed the selected contact sample in each of the sample counties in the study.
14. Compiled and analyzed data.

PRESENTATION OF DATA

Agricultural Businesses, Industries and Services in Alabama

Table 1 reflects the types of agricultural businesses, industries and services operating in Alabama by main product or service categories. The eighteen types of firms or services listed are sub-divisions of the seven original broad categories included in the study.

Table 2 indicates the number of businesses and industries in Alabama by counties and main product or service categories. In general, the spread difference in the number of firms by main product

² See Appendix A, page 88

³ See Appendix D, page 93

Table 1. Agricultural Businesses, Industries, and Services In Alabama By Main Product or Service Categories

Main Product or Service Categories

Agricultural Chemical Manufacturers and Wholesales¹
 Dairy Products Manufacturers and Distributors
 Crop Processing, Sales and Warehousing²
 Farm Machinery and Equipment Manufacturers and Wholesales
 Farm Machinery and Equipment Retail Sales and Service
 Farm Service³
 Farm Supply Retail Stores⁴
 Feed Manufacturers and Wholesales
 Flower Production and Sales
 Food Processing and Distribution⁵
 Government Agricultural Services⁶
 Livestock Sales and Service⁷
 Lumber and Wood Products⁸
 Meat Processing and Wholesales⁹
 Nursery Production, Sales and Landscaping Service

1 Fertilizers, herbicides, insecticides and gum and wood chemicals

2 Farm products (raw materials)

3 Does not include government agricultural services

4 Includes hardware stores in non-metropolitan areas

5 Includes canned and frozen food plants, flour mills, meat mills, and crop oil mills

6 Includes state and federal agencies

7 Includes stockyards and special services

8 Includes pulp mills, logging, pulp-wood contractor, sawmills, planning mills, and forest nurseries

9 Includes meat packing plants and freezer plants

Table 1 (continued)

Main Product or Service Categories

Ornamental Plant Service and Turf Care¹⁰

Pest Control Service

Poultry and Poultry Processing and Sales

¹⁰ Includes parks, cemeteries, golf courses, country clubs and others

Table 2. Number of Agricultural Businesses and Industries in Alabama and Main Product or Service Categories

Counties	Number by main product or service categories (See footnote for categories)															Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Autauga	0	3	5	0	11	2	13	3	2	11	3	1	0	4	2	26	165
Baldwin	0	2	3	3	0	0	4	1	1	5	2	1	0	0	1	0	164
Barbour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Bibb	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	81
Blount	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	22
Bullock	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	32
Butler	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	117
Calhoun	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	23
Chambers	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	53
Cherokee	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	73
Chilton	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	56
Choctaw	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	34
Clarke	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	21
Clay	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	66
Cleburne	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	55
Coffee	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	61
Colbert	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	21
Conecuh	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	75
Coosa	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	32
Covington	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	153
Crenshaw	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	32
Cullman	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	60
Dale	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	199
Dallas	0	2	3	0	0	4	1	1	5	2	1	0	0	0	0	0	9

Table 2 (continued)

Counties	Number by main product or service categories (See footnote for categories)															Totals	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dekalb																	191
Elmore																	62
Escambia																	54
Etowah																	71
Fayette																	73
Franklin																	87
Geneva																	74
Greene																	45
Hale																	81
Harris																	126
Houston																	62
Jackson																	401
Jefferson																	66
Lamar																	91
Lauderdale																	40
Lawrence																	32
Lee																	32
Limestone																	13
Loudes																	198
Mecon																	34
Madison																	58
Marengc																	32
Marion																	195
Marshall																	32
																	129
																	56

Table 2 (continued)

Counties	Number by main product or service categories (See footnotes for categories)																Totals
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Mobile	13	19	0	6	4	7	3	2	2	1	3	2	5	6	5	6	260
Monroe	13	11	0	0	4	10	4	0	0	1	1	3	1	2	3	1	59
Morgan	13	12	0	0	4	10	4	0	0	1	1	3	1	2	3	1	195
Perry	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	187
Pickens	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	55
Pike	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	92
Randolph	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	47
Russell	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	61
Shelby	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	24
St. Clair	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	18
Sumter	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	48
Talladega	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	72
Tallapoosa	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	56
Tuscaloosa	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	95
Walker	12	3	0	4	10	4	0	0	2	1	3	1	2	3	1	1	95

Table 2 (continued)

Counties	Number by main product or service categories (See footnote for categories)															Totals		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Washington	1	0	0	1	0	2	3	0	1	3	3	11	0	0	0	0	1	26
Wilcox	0	0	6	1	0	2	6	1	2	2	1	30	0	0	0	0	0	51
Winston	0	0	0	0	0	2	17	4	2	0	0	7	1	0	0	0	0	33
Totals	175	189	385	277	12	473	746	288	467	197	282	884	165	310	190	208	195	5,143

1. Agri. chemical manuf. and wholesales
2. Dairy product manuf. and district.
3. Cotton processing sales and warehousing
4. Farm mach. and equip. retail sales and service
5. Farm mach. and equip. manuf. and wholesales
6. Farm service
7. Farm supply retail stores
8. Feed manuf. and wholesales
9. Flower production and sales
10. Food processing and distribution
11. Livestock sales and service
12. Lumber and wood products
13. Meat processing and wholesale
14. Nursery production sales and landscaping services
15. Ornamental plant service and turf care
16. Pest control service
17. Poultry and poultry processing and sales

Table 3. Mean, Median, Mode, and Range Number of Businesses by Main Product or Service Categories
in Alabama Counties Excluding Those Counties with Metropolis Areas.

- Headnote:**
1. Agri. chemical manuf. and wholesales
 2. Dairy product manuf. and dist.
 3. Cotton processing sales and warehousing
 4. Farm mach. and equip. retail sales and service
 5. Farm mach. and equip. manuf. and wholesales
 6. Farm service
 7. Farm supply retail stores
 8. Feed manuf. and wholesales
 9. Flower production and sales
 10. Food processing and distribution
 11. Livestock sales and service
 12. Lumber and wood products
 13. Meat processing and wholesales
 14. Nursery production sales, and landscaping services
 15. Ornamental plant service and turf care
 16. Pest control service
 17. Poultry and poultry processing and sales

Descriptive	Number by main product or service categories (See headnote for categories)										15	16	17	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Mean	2	2	6	3	---	7	11	4	5	2	3	13	2	2
Median	1	1	4	4	0	4	8	3	4	1	2	9	1	1
Mode	0	0	4	3	0	1	8	2	2	0	1	3	1	1
Range	0-18	0-12	0-32	0-11	0-3	1-45	3-61	0-19	0-21	0-12	0-11	1-84	0-7	0-30
												0-40	0-9	0-20

or service categories operating in individual counties was small. This is evident with exception of Jefferson, Mobile and Montgomery counties. These counties are three of the four counties in the state with metropolis areas. This small difference is also reflected in the computed measures of central tendency shown in Table 3. There was little variation between the mean, median and mode when the counties with metropolis areas were excluded. It will be noted that the largest variations in numbers of firms operating were in the main product or service categories of cotton processing, farm machinery manufacturing and wholesales, sales and warehousing; farm service, farm supply retail stores, flower production and sales, lumber and wood products.

Agricultural Businesses, Industries and Services in the Sample Counties. Table 4 reveals descriptive numerical and percentage data for the agricultural businesses, industries and services in the sample counties. There were a total of 1,680 firms operating in the twenty counties. The largest number of firms operating was in the category of livestock sales and service. This category was followed closely in number by the categories of flower production and sales and farm supply retail stores. The smallest number of firms operating was in the farm service category. Of the total 1,680 firms in all categories a random sample of 638 (37 per cent) was drawn. The interviewers contacted 545 (85 per cent) of the 638 in the sample. Of the total contacted 474 (87 per cent) were payroll firms.

Table 4. Agricultural Businesses and Industries in the Sample Counties by Main Product or Service Categories

Product or Service Categories	Total Sample Counties	Number Contacted			Per Cent Contacted		
		Total	Sample Total	Sample Contacted	Payroll ¹	Sample Contacted	Sample Payroll
Agricultural Chemical Manufacturers and Wholesalers							
	65	24	24	24	37	100	100
Dairy products manufacturers and distributors							
	87	27	21	21	31	77	100
Cotton processing, sales and warehousing							
	92	30	28	27	32	93	96
Farm machinery and equipment retail sales and service							
	82	42	40	39	51	95	97
Farm Service							
	44	21	20	18	48	96	90
Farm supply retail stores							
	203	81	73	56	38	90	76
							12

¹ Businesses with employee payrolls

Table 4 (continued)

Product or Service Categories	Number			Per Cent			
	Total Sample		Contacted	Sample	Contacted	Firms in all categories	
	Total	Sample	Contacted	Payroll	Payroll		
Counties							
Feed manufacturers and wholesales	63	32	30	26	51	93	86
Flower production and sales	213	41	36	18	19	87	50
Food processing and distribution	85	25	21	19	29	84	90
Livestock sales and service	181	120	118	93	55	98	79
Lumber and wood products	153	36	33	31	24	91	94
Meat processing and wholesales	71	28	21	16	39	75	76
Nursery production, sales and landscaping services	129	48	29	27	37	60	93
						?	?

Table 4 (continued)

Product or Service Categories	Total Sample Counties	Number			Per Cent		
		Contact Sample		Payroll	Sample	Sample	Firms in
		Total	Contacted		Contacted	Payroll	all categories
Ornamental plant service and turf care	62	26	23	41	88	100	4
Pest control service	93	24	18	11	25	75	5
Poultry and poultry processing and sales	87	33	29	27	37	87	3
Totals	1,686	638	545	174	37	85	87
Firms in all categories							

Employment in Agricultural Businesses, Industries and Services.

Table 5 shows the number and per cent of persons employed in the agricultural businesses, industries and services contacted in the sample counties by main product or service categories. There were 16,983 persons employed in the 747 payroll firms. Of the 16,983 persons employed, 14,026 were employed full-time; while 4,957 were part-time workers. Agricultural chemical manufacturers and wholesales employed the largest number while flower production and sales employed the smallest total number of workers. The number of full-time employees exceeded part-time employees in all categories except cotton processing, sales and warehousing.

Off-farm Agricultural Occupations. Table 6 reflects the number and per cent of persons employed in off-farm agricultural occupation in the 474 payroll firms contacted in the twenty sample counties. Of the total 16,983 employed, 4,204 (20 per cent) were employed in an agricultural occupation. Of the 4,204 persons employed, 830 were employed part-time. The categories with the largest number of persons employed indicated that only a small percentage of the persons were engaged in an agricultural occupation.

Data in Table 7 indicate that there were a total of 2,487 persons employed by the state and federal government in agricultural services. Of this total, 252 (10 per cent) were part-time employees of the State Department of Agricultural and Industries in regulatory and service functions. In referring to Table 7 one will note a sub-division category of education and research. This category consists of employees engaged in both functions.

Table 5. Number and Per cent of Person Employed in Agricultural Businesses, Industries and Services Contacted in the Twenty Sample Counties by Main Products or Service Categories¹

Product or Service Categories	Employed		
	Total Number	Full-time Number	Part-time Number
	Per cent	Per cent	Per cent
Agri. chemical manuf. and wholesales	3,554	3,239	92
Dairy products manuf. and dist.	1,889	1,810	96
Cotton processing, sales	2,310	947	11
Farm machinery and equip. retail sales and service	656	624	95
Farm service	195	137	70
Farm supply retail stores	616	463	75
Feed manuf. and wholesales	998	884	89
Flower production and sales	678	502	74
Food processing and dist.	314	201	64

1 Does not include those persons employed in government agricultural services

Table 5 (continued)

Product or Service Categories	Employed			Part-time	
	Total Number	Full-time Number	Per cent	Number	Per cent
Livestock sales and service	488	377	77	111	23
Lumber and wood products	2,844	2,735	96	109	4
Meat processing and wholesales	1,050	1,025	98	25	2
Nursery production, sales and landscaping service	349	235	67	114	33
Ornamental plant service and turf care	282	245	87	37	13
Pest control service	116	105	91	11	9
Poultry and poultry product processing and sales	614	497	78	147	22
Totals	16,983	14,026	--	2,957	--

Table 6. Number and Per Cent of Persons Employed in Off-farm Agricultural Occupations in the Businesses, Industries and Services Contacted in the Twenty Sample Counties by Main Products or Service Categories

Product or Service Categories	Persons Employed by Firms						
	Agricultural Occupations ²		Part-time		Part-time		
	Total Number	% of Total Employed	No.	%	No.	%	
Agricultural chemical manuf. and wholesales	3,554	204	10	1.77	50	175	50
Dairy products manuf. and distributors	1,889	357	18	342	97	15	3
Cotton processing, sales and warehousing	2,310	173	4	55	31	118	69
Farm machinery and equip. retail sales and service	656	622	95	573	92	49	8
Farm Service	195	115	59	80	70	35	30
Farm supply retail stores	616	492	80	388	82	104	18

1 Does not include government agricultural services

2 See page 3 for definition

Table 6 (continued)

Product or Service Categories	Persons Employed by Firms					
	Agricultural Occupations		Full-time		Part-time	
	Total Number	% of Total Employed	No.	%	No.	%
Feed manufacturers and wholesales	998	31.5	31	31.0	98	5 2
Flower production and sales	678	44.9	64	301	67	148 33
Food processing and dist.	314	64	19	51	80	13 20
Livestock sales and service	468	35.1	65	284	81	67 19
Lumber and wood products	2,844	188	7	187	99+	1 ---
Meat processing and wholesales	1,050	149	14	146	99	3 1
Nursery production, sales and landscaping service	349	21.3	61	168	79	45 21
Ornamental plant service and turf care	282	92	32	77	84	15 16
Pest control service	116	64	55	60	94	4 6
Poultry and poultry processing and sales	644	208	32	175	84	33 22
Total	16,983	4,204	20	3,374	80	830 20

Table 7. Number and Per Cent of Persons Employed in Off-farm Agricultural Occupations by Federal Government, Auburn University and the State Department of Agriculture and Industries by Service Categories¹

Service Categories	Employed			
	Total Number	Full-time Number	Per cent	Part-time Number
Education	685	685	100	0
Education and Research	223	223	100	0
Finance and Credit	99	99	100	0
Regulatory	474	296	70	128
Service	1,050	926	88	124
Total	2,481	2,229		252

¹ See Table 10 page 49 for occupations under each service category

Table 8 reflects a listing of the off-farm agricultural occupations found in Alabama. The 184 different occupations were categorized according to main product or service category firms.

Employment in Off-farm Agricultural Occupations. Data in Table 9 depicts the extent of employment in off-farm agricultural occupations in the 474 payroll firms contacted. The table indicates the degree of employment by occupational level within the main product or service categories. Table 10 reflects data similar to that revealed in Table 9. This table, however, reflects occupational data by service categories within state and federal government agricultural agencies.

Table 8. Off-farm Agricultural Occupations By Main Product Or Service Category

Agricultural Chemical Manufacturers and Wholesale

- | | |
|-------------------------|---------------------------------------|
| 1. General Manager | 8. Fertilizer Salesman |
| 2. Plant Superintendent | 9. Insecticide and Herbicide Salesman |
| 3. Sales Manager | 10. Plant Office Clerk |
| 4. Agronomists | 11. Warehouse Stock Clerk |
| 5. Technical Fieldman | 12. Millwright ¹ |
| 6. Educational Director | 13. Warehouse Serviceman ² |
| 7. Plant Supervisor | |

Dairy Products Manufacturers and Distributors

- | | |
|----------------------------|-----------------------------|
| 14. General Plant Manager | 18. Dairy Plant Fieldman |
| 15. Dairy Plant Supervisor | 19. Bulk Tank Truck Driver |
| 16. Route Supervisor | 20. Dairy Products Salesman |
| 17. Dairy Technologist | 21. Dairy Plant Worker |

Cotton Processing, Sales and Warehousing

- | | |
|----------------------------------|-------------------------------|
| 22. Gin and Warehouse Manager | 26. Gin Operator ³ |
| 23. Cotton Fieldman | 27. Ginwright ¹ |
| 24. Cotton Buyer | 28. Ginner ⁴ |
| 25. Gin and Warehouse Bookkeeper | 29. Warehouseman |

Farm Machinery Retail Sales and Service

- | | |
|---|--|
| 30. General Manager | 34. Farm Machinery Parts Clerk |
| 31. Farm Machinery Service Center Manager | 35. Farm Machinery Business Bookkeeper |
| 32. Farm Machinery Parts Manager | 36. Farm Machinery Mechanic |
| 33. Farm Machinery Salesman | 37. Farm Machinery Field Mechanic |

¹ Worker that changes the layout and set-up of machines and mechanical equipment, keeps the machines and equipment in efficient operating condition and performs duties such as dismantling, moving, installing and repairing machines

² Worker performing a service for the benefit of another worker or customer

³ Worker that tends machine that separate cotton from seed

⁴ Worker performing semi-skilled duties entailing in the suction feeding, hydraulic pressing, etc. in cotton processing

Table 8 (continued)

Farm Supply and Equipment Retail Stores

- 38. Farm Supply and Equipment Store Manager
- 39. Farm Supply and Quipment Store Fieldman
- 40. Farm Supplies and Equipment Salesman
- 41. Farm Supply Store Sales Clerk
- 42. Farm Supply Store Bookkeeper
- 43. Farm Equipment Parts Clerk
- 44. Farm Supply Store Stock Clerk
- 45. Farm Equipment and Facilities Maintenance Man
- 46. Farm Supply Store Serviceman²

Feed Manufacturers and Wholesales

- 47. General Manager
- 48. Mill Manager
- 49. Mill Supervisor
- 50. Feed Salesman
- 51. Warehouse Stock Clerk
- 52. Feed Mill Operator
- 53. Feed Mixer Operator
- 54. Millwright¹
- 55. Feed Mill Serviceman²

Farm Service

- 56. Feeding Unit Manager
- 57. Mobile Feed Mill Operator
- 58. Facilities Maintenance Man
- 59. Poultry Fieldman
- 60. Bulk Feed Truck Driver
- 61. Custom Work Business Manager
- 62. Custom Farm Machine Operator
- 63. Bulk Fertilizer Spreader Operator
- 64. Liquid Fertilizer Applicator Machine Operator
- 65. Seed Cleaner Operator
- 66. Rural Electrification Advisor
- 67. PCA Office Manager
- 68. PCA Field Representative

Flower Production and Sales

- 69. Florists

¹ Worker that changes the layout and set-up of machines and mechanical equipment, keeps the machines and equipment in efficient operating condition and performs duties such as dismantling, moving, installing and repairing machines

² Worker performing a service for the benefit of another worker or customer

Table 8 (continued)

Food Processing and Distribution

- 70. General Manager
- 71. Plant Supervisor
- 72. Produce Buyer
- 73. Machine Operators
- 74. Graders
- 75. Millwright¹

Government Agricultural Services

- 76. Agricultural Economist
- 77. Agricultural Engineer
- 78. Animal Scientist
- 79. Agronomist
- 80. County Agricultural Extension Agent
- 81. Entomologist
- 82. Forester
- 83. Ornamental Horticulturist
- 84. Plant Scientist
- 85. Soil Scientist
- 86. Teacher of Vocational Agriculture
- 87. Veterinarian
- 88. Wildlife Biologist
- 89. Farmer Home Administration Supervisor
- 90. Federal Land Bank Appraiser
- 91. Federal Land Bank Field Manager
- 92. Agricultural Chemical Inspector
- 93. Gin and Warehouse Inspector
- 94. Grain Sampler
- 95. Lands Inspector
- 96. Livestock Inspector
- 97. Milk Marketing Examiner
- 98. Plant Industry Inspector
- 99. Poultry Inspector
- 100. Poultry Products Inspector
- 101. Produce Inspector
- 102. Seed Analyst
- 103. Seed Technologist
- 104. Veterinarian Assistant
- 105. Wildlife Conservation Officer
- 106. Agricultural Journalist
- 107. ASCS Compliance Fieldman
- 108. ASCS District Fieldman
- 109. ASCS County Fieldman
- 110. ASCS County Office Manager
- 111. ASCS Program Specialist
- 112. ASCS Performance Checkers
- 113. Crop Insurance Fieldman
- 114. Cotton Classers
- 115. Forest Patrolman
- 116. Forest Towerman
- 117. Forest Rangers
- 118. Livestock Market Analyst
- 119. Market News Analyst
- 120. Park Ranger
- 121. Soil Conservationist
- 122. Soil Conservation Technician

Livestock Sales and Service

- 123. Stockyard Manager
- 124. Artificial Inseminator
- 125. Veterinarian
- 126. Veterinarian Assistant

¹ Worker that changes the layout and set-up of machines and mechanical equipment, keeps the machines and equipment in efficient operating condition and performs duties such as dismantling, moving, installing and repairing machines

Table 8 (continued)

Livestock Sales and Service

- | | |
|----------------------|-----------------------------|
| 127. Auctioneer | 130. Livestock Grader |
| 128. Livestock Buyer | 131. Stockyard Weighmaster |
| 129. Stockyard Clerk | 132. Stockyard Sorter |
| | 133. Livestock Truck Driver |

Lumber and Wood Products

- | | |
|-------------------------------------|------------------------------------|
| 134. Pulpwood Yard Manager | 143. Log Scaler ¹ |
| 135. Sawmill Manager | 144. Millwright ¹ |
| 136. Pole Yard Manager | 145. Rolling Equipment Operator |
| 137. Forester | 146. Lumber Checker |
| 138. Pulpwood Yard Supervisor | 147. Lumber Grader |
| 139. Woods Supervisor | 148. Pole Inspector |
| 140. Pole Treating Plant Supervisor | 149. Stationary Equipment Operator |
| 141. Timber Buyer | 150. Timber Marker |
| 142. Timber Cruiser | |

Meat Processing and Wholesales

- | | |
|-----------------------|--------------------------|
| 151. Plant Manager | 155. Meat Cutter |
| 152. Plant Supervisor | 156. Livestock Grader |
| 153. Livestock Buyer | 157. Locker Plant Worker |
| 154. Meat Salesman | |

Nursery Production, Sales and Landscaping Service

- | | |
|------------------------------------|--------------------------------|
| 158. Nursery Manager | 162. Nursery Stock Salesman |
| 159. Landscape Gardener | 163. Propagator |
| 160. Nursery Production Supervisor | 164. Nursery Production worker |
| 161. Landscape Architect | 165. Equipment Operator |

Ornamental Plant Service and Turf Care

- | | |
|------------------------|-------------------|
| 166. Landscape Gardner | 168. Park Ranger |
| 167. Green Keeper | 169. Tree Surgeon |

Pest Control Service

- | | |
|------------------------------------|----------------------------------|
| 170. Pest Control Business Manager | 171. Exterminator |
| | 172. Pest Control Route Salesman |

¹ Worker that changes the layout and set-up of machines and mechanical equipment, keeps the machines and equipment in efficient operating condition and performs duties such as dismantling, moving, installing and repairing machines.

Table 8 (continued)

Poultry and Poultry Product Processing and Sales

- | | |
|--|--------------------------------|
| 173. Hatchery Manager | 179. Poultry and Egg Salesman |
| 174. Egg Processing Plant Manager | 180. Poultry and Egg Buyer |
| 175. Poultry Meat Processing
Manager | 181. Hatchery Worker |
| 176. Poultry Fieldman | 182. Egg Candler |
| 177. Hatchery Supervisor | 183. Poultry Meat Processor |
| 178. Poultry Meat Processing
Plant Supervisor | 184. Live Poultry Truck Driver |

Table 9. Employment In Off-Farm Agricultural Occupations in Businesses and Industries Contacted
in the Twenty Sample Counties by Main Products or Services

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time Number			Employed Part-time Number		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
<i>Agricultural Chemical Manufacturers and Wholesales</i>						
Managerial						
General Manager	12	12	12	0	0	0
Plant Superintendent	12	12	12	0	0	0
Sales Manager	4	4	4	0	0	0
Technical						
Agronomists	2	3	4	0	0	0
Service						
Technical Fieldman	4	6	25	23	40	
Educational Director	1	1	0	0	0	

Note: Omissions in table (...) indicate data either not available or insufficient to report.

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
				Ago	Ago	Ago
Supervision						
Plant Supervisor	8	8	11	2	2	5
Sales						
Fertilizer Salesman	51	54	76	1	2	4
Insecticide and Herbicide Salesman	12	12	14	1	1	3
Clerical						
Plant Office Clerk	27	27	29	1	1	1
Warehouse Stock Clerk	12	12	16	6	8	10
Skilled						
Millwright	3	3	4	0	0	0
Warehouse Serviceman	13	13	16	102	126	175
Semi-skilled						
Warehouse Serviceman	12	12	16	11	12	14
						30

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time Number			Employed Part-time Number		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
Dairy Products Manufacturers and Distributors						
Managerial						
General Plant Manager	15	15	15	0	0	0
Supervision						
Dairy Plant Supervisor Route Supervisor	40 4	36 5	38 7	0	0	0
Technical						
Dairy Technologist	20	18	19	0	0	0
Service						
Dairy Plant Fieldman Bulk Tank Truck Driver	3 22	3 23	4 28	0 2	0 2	0 3
Sales						
Dairy Products Salesman	133	132	143	0	0	0

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Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time Number			Employed Part-time Number		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
Skilled						
Dairy Plant Worker	103	104	117	9	13	18
Cotton Processing, Sales and Warehousing						
Managerial						
Gin and Warehouse Manager	27	27	27	0	0	0
Technical						
Cotton Fieldman	2	2	3	0	0	0
Sales						
Cotton Buyer	2	2	2	0	0	0
Clerical						
Gin and Warehouse Bookkeeper	1	1	1	6	6	6

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Number		One Year Ago	Expected in five years	One Year Ago	Current
	One	Current				
Skilled						
Gin Operator	0	0	0	46	48	51
Ginwright	3	3	3	5	5	5
Semi-skilled						
Ginner	17	17	17	47	48	48
Warehouseman	3	3	3	7	13	13
Farm Machinery Retail Sales and Service						
Managerial						
General Manager	30	30	30	0	0	0
Farm Machinery Service Center Manager	14	14	14	0	0	0
Farm Machinery Parts Manager	9	9	9	0	0	0
Sales						
Farm Machinery Salesman	27	29	38	0	0	0

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Number		One Year Ago	Current	Expected in five years	One Year Ago
	One Year Ago	Current				
Clerical						
Farm Machinery Parts Clerk	29	32		39	2	5
Farm Machinery Business Bookkeeper	10	11		13	1	1
Skilled						
Farm Machinery Mechanic	85	95		133	8	12
Farm Machinery Field Mechanic	3	3		4	0	0
Semi-skilled						
Farm Machinery Mechanic	11	11		15	0	1
Farm Machinery Field Mechanic	21	22		44	0	0
Farm Supply and Equipment Retail Stores Managerial						
Farm Supply and Equipment Store Manager	62	62		64	0	1
						2
						34

Table 9 (continued)

Occupations by levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Number		One Year Ago	Current	Expected in five years	One Year Ago
	One Year Ago	Current				
Technical						
Farm Supply and Equipment Store Fieldman	2	4		6	0	0
Sales						
Farm Supplies and Equipment Salesman	35	35	43	2	3	3
Clerical						
Farm Supply Store Sales Clerk	64	64	83	5	6	11
Farm Supply Store Bookkeeper	3	4	4	0	0	0
Farm Equipment Parts Clerk	4	4	4	0	0	0
Farm Supply Store Stock Clerk	8	7	9	3	3	3
Skilled						
Farm Equipment and Facilities Maintenance Man	24	24	24	0	0	0
Farm Supply Store Serviceman	28	31	35	0	0	35

Table 9 (continued)

Occupations by levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Number		Expected in five years	One Year Ago	Current	Expected in five years
	One Year Ago	Current				
Semi-skilled						
Farm Equipment and Facilities Maintenance Man	0	0	0	0	0	0
Farm Supply Store Serviceman	41	36	48	47	49	59
Feed Manufacturers and Wholesalers						
Managerial						
General Manager	27	26	34	1	0	0
Mill Manager	10	10	10	0	0	0
Supervisor						
Mill Supervisor	61	53	63	0	0	0
Sales						
Feed Salesman	124	129	152	1	1	1

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Current		Expected in five years	One Year Ago	Number	One Year Ago
	One Year Ago	Number				
Clerical					0	0
Warehouse Stock Clerk	10	10	15	0	0	0
Skilled					0	0
Feed Mill Operator	56	3	3	0	0	0
Feed Mixer Operator	3	3	3	0	0	0
Millwright	1	1	1	0	0	0
Semi-skilled					0	0
Feed Mill Serviceman	25	24	28	3	3	3
Farm Service					0	0
Managerial					0	0
Feeding Unit Manager	?	7	7	0	0	0
Farm Custom Work Business Manager	1	1	1	0	0	0

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time Number			Employed Part-time Number		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
Service						
Rural Electrification Advisor	5	5	5	0	0	0
PCA Office Manager	•••	20	20	••	0	0
PCA Field Representative	•••	26	29	••	14	11
Poultry Fieldman	0	1	2	0	0	0
Skilled						
Mobile Feed Mill Operator	10	10	10	0	0	0
Facilities Maintenance Man	3	3	3	0	0	0
Bulk Feed Truck Driver	1	2	3	0	0	0
Custom Farm Machine Operator	0	1	4	2	3	5
Bulk Fertilizer Spreader Operator	4	4	4	4	5	6
Liquid Fertilizer Applicator	0	0	0	0	10	12
Machine Operator	0	0	0	3	3	3
Seed Cleaner Operator	0	0	0	0	0	0
Flower Production and Sales						
Technical						
Florists	32	33	48	16	16	25

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time		Employed Part-time	
	One Year Ago	Current	Expected in five years Ago	One Year Ago
Food Processing and Distribution				
Managerial				
General Manager	14	14	14	0
Supervision				0
Plant Supervisor	8	8	11	0
Sales				0
Produce Buyer	6	6	9	2
Skilled				2
Machine Operators	12	12	12	4
Graders	6	6	7	8
Millwright	5	5	7	0

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Table 9 (continued)

Occupations by levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Number		One Year Ago	Current	One Year Ago	Expected in five years
	One Year Ago	Current				
Livestock Sales and Service						
Managerial						
Stockyard Manager	10	10	10	0	0	0
Technical						
Artificial Inseminator	5	7	8	1	1	1
Service						
Veterinarian	...	162	...	...	...	...
Veterinarian Assistant	...	78	123	11	11	11
Auctioneer	3	3	3	1	1	1
Sales						
Livestock Buyer	4	5	6	4	5	5
Clerical						
Stockyard Clerk	1	1	1	5	5	6

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Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Employed Number		Expected in five years Ago	One Year Ago	Current	Number
	One Year Ago	Five years Ago				
Clerical (continued)						
Livestock Grader	0	0	0	0	2	2
Stockyard Weighmaster	0	0	0	0	2	2
Semi-skilled						
Stockyard Sorter	14	14	14	15	51	51
Livestock Truck Driver	4	4	5	0	0	0
Lumber and Wood Products						
Managerial						
Pulpwood Yard Manager	3	3	3	0	0	0
Sawmill Manager	5	5	5	0	0	0
Pole Yard Manager	3	3	3	0	0	0
Technical						
Forester	36	37	51	0	0	0
						F1

Table 9 (continued)

	Employed Full-time Number			Employed Part-time Number		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
Supervisor						
Pulpwood Yard Supervisor	27	28	28	0	0	0
Woods Supervisor	4	4	4	0	0	0
Pole Treating Plant Supervisor	3	3	4	0	0	0
Sales						
Timber Buyer	3	3	3	0	0	0
Skilled						
Timber Cruiser				8	8	1
Log Scaler				4	4	0
Millwright				4	4	0
Rolling Equipment Operator				38	3	2
Lumber Checker				44	1	1
Lumber Grader					2	2
Pole Inspector					4	18
Stationary Equipment Operator				14	1	1

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Number		One Year Ago	Current	Expected in five years	One Year Ago
	One	Current				
Semi-skilled						
Trimmer Marker	16	16	19	0	0	0
Meat Processing and Wholesales Managerial						
Plant Manager	16	16	16	0	0	0
Supervisor						
Plant Supervisor	11	10	11	0	0	0
Sales						
Livestock Buyer	16	17	20	0	0	0
Meat Salesman	40	53	61	0	0	0
Skilled						
Meat Cutter	37	47	66	2	0	4
Livestock Grader	12	12	15	0	0	0
Locker Plant Worker	9	11	12	3	3	3

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time Number			Employed Part-time Number		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
Nursery Production, Sales and Landscaping Service						
Managerial	23	23	23	1	1	1
Nursery Manager						
Technical						
Landscape Gardener	11	11	12	0	0	0
Supervisor						
Nursery Production Supervisor	14	14	14	0	0	0
Sales						
Nursery Stock Salesman	22	20	30	5	5	11
Skilled						
Propagator	11	11	13	3	3	6
Nursery Production Worker	52	55	68	24	24	39
Equipment Operator	2	2	2	0	0	0

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
				Number	Number	Number
Semi-skilled						
Propagator	33	33	33	0	0	0
Nursery Production Worker	1	1	3	12	12	15
Equipment Operator	1	1	3	0	0	0
Ornamental Plant Service and Turf Care						
Managerial						
Manager	11	11	11	0	0	0
Technical						
Landscape Gardener	20	20	22	5	5	6
Green Keeper	12	13	15	0	0	0
Park Ranger	8	7	10	2	2	0
Skilled						
Tree Surgeon	20	22	24	1	1	1
						55

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time			Employed Part-time		
	Number		One Year Ago	Current	Expected in five years	One Year Ago
	One	Current				
Semi-skilled						
Tree Surgeon	4	4	6	1	3	1
Pest Control Service						
Managerial						
Pest Control Business Manager	6	6	6	1	1	1
Technical						
Exterminator	33	42	62	0	1	0
Sales						
Pest Control Route Salesman	13	16	21	2	3	6
Poultry and Poultry Product Processing and Sales						
Managerial						
Hatchery Manager	8	8	8	0	0	0

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Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time				Employed Part-time			
	Number		One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
	One	Year Ago						
Managerial (continued)								
Egg Processing Plant Manager	7	7	7	0	0	0	0	0
Poultry Meat Processing Manager	4	4	4	0	0	0	0	0
Technical								
Poultry Fieldman	4	6	10	0	0	0	0	0
Supervisor								
Hatchery Supervisor	8	8	8	0	0	0	0	0
Poultry Meat Processing Plant Supervisor	10	10	11	0	0	0	0	0
Sales								
Poultry and Egg Salesman	3	3	3	0	0	0	0	0
Poultry and Egg Buyer	3	3	5	2	3	5	5	5

Table 9 (continued)

Occupations by Levels of Employment and Main Product or Service Categories	Employed Full-time		Employed Part-time	
	Number		Number	
	One Year Ago	Current	Expected in five years	One Year Ago
Skilled				
Hatchery Worker	58	59	70	2
Egg Candler	61	60	72	6
Poultry Meat Processor	1	1	2	5
			15	24
Semi-skilled				
Live Poultry Truck Driver	5	6	6	0
			0	0

Table 10. Employment in Off-Farm Agricultural Occupations By State and Federal Agencies,
Auburn University, and the State Department of Agriculture and Industries by
Service Categories

Occupations by Service Categories	Employed Full-time			Employed Part-time		
	One Year Ago	Current	Expected in five years	One Year Ago	Current	Expected in five years
Education						
County Agricultural Agents	230	225	249	0	0	0
Extension Supervisors and Specialist	84	88	122	0	0	C
Vocational Agriculture Teachers	362	359	415	0	C	0
Vocational Agriculture Supervisors and Specialists	11	10	•••	0	0	0
Agricultural Journalist	3	3	5	0	0	0
Education and Research						
Agronomist	24	24	33	0	0	0
Veterinarian	35	38	44	0	0	0
Plant Scientist	40	40	48	0	0	0

Note: Omissions in table (•••) indicate data either not available or insufficient to report.

Table 10 (continued)

Occupations by Service Categories ^a	Employed Full-time		Employed Part-time		Expected in five years
	One Year Ago	Current	One Year Ago	Current	
Education and Research (continued)					
Entomologist	12	12	14	20	
Agricultural Economists	14	15	17	20	
Agricultural Engineering	17	17	17	20	
Animal Scientist	33	34	41	41	
Soil Scientist	12	12	13	13	
Wildlife	9	9	11	11	
Forester	19	19	23	23	
Dairy Technologist	3	3	5	5	
Finance and Credit					
Federal Land Bank Manager	23	23	23	23	
Federal Land Bank Appraisal	•••	69	7	7	
FHA Supervisor			69	69	
Regulatory					
Agricultural Chemical Inspector	6	6	19	19	8
Gin and Warehouse Inspector	16	16	5	5	20
Grain Sampler	5	5	4	4	••6
Lands Inspector	4	4			50

Table 10 (continued)

Occupations by Service Categories	Employed Full-time		Employed Part-time	
	One Year Ago	Current	Expected in five years	Expected in five years
Regulatory (continued)				
Livestock Inspector	32	32	27	0
Milk Marketing Examiner	7	7	14	0
Plant Industry Inspector	21	22	36	0
Poultry Inspector	11	11	...	0
Poultry Products Inspector	12	12	51	0
Produce Inspector	36	36	20	150
Seed Analyst	15	15	2	0
Seed Technologist	2	2	2	0
Veterinarian	24	23	29	40
Veterinarian Assistant	0	0	0	3
Wildlife Conservation Officer	102	102	102	0
Service				
Agronomist	2	2	2	0
Agricultural Engineer	6	4	...	0
Agricultural Economist	1	1	...	0
Grain Sampler	5	5	...	0

Table 10 (continued)

Occupations by Service Categories	One Year Ago	Employed Full-time Current Expected in five years	One Year Ago	Employed Part-time Current Expected in five years	
				52	52
Forester	64	70	7	0	0
Livestock Inspector	4	27	30	0	0
Plant Industry Inspector	29	11	13	0	0
Seed Analyst	11	29	45	0	0
Wildlife Biologist	27	102	102	0	0
Wildlife Conservation Officer	15	16	21	0	0
Wildlife Refuge Manager	6	5	5	0	0
ASCS Compliance Fieldman	6	6	6	0	0
ASCS District Fieldman	26	29	34	0	0
ASCS County Fieldman	67	67	67	0	0
ASCS County Office Manager	10	10	11	0	0
ASCS Program Specialist	2	3	4	0	0
Crop Insurance Fieldman	3	3	4	0	0
Cotton Classers	3	3	4	0	0
Forest Aid	27	27	30	0	0
Forest Patrolman	140	86	86	0	0
Forest Towerman	86	72	72	0	0
Forest Rangers	4	4	4	0	0
Livestock Market Analyst	4	4	4	0	0
Park Ranger	11	12	18	0	0
Soil Conservationist	89	90	90	0	0
Soil Conservation Technician	87	85	85	0	0
Soil Scientist	18	21	21	0	0

Employment Opportunities in Off-farm Agricultural Occupations.

Data in Table 11 indicate the extent of full-time and part-time employment opportunities in agricultural occupations by main product or service categories in the 474 payroll firms contacted. The replacement opportunities were calculated on the basis of the three per cent death and retirement factors used by major insurance companies and the Alabama State Bureau of Vital Statistics. It should be noted that the opportunities reflected, represent calculations from only 36 per cent of the firms operating in the twenty sample counties included in the study. Table 12 depicts similar employment opportunity data for state and federal government agricultural agencies.

Occupational Characteristics. Table 13 through 16 reflect data relative to occupational characteristics. These tables include data collected during interviews with employers. Much of the data is from estimated expressions. The expressed annual turn over and monthly salary are the compiled range expressed by all employers with persons employed in that occupation. The median salary was calculated from the range expressions.

**Table 11. Extent of Full-time and Part-time Employment Opportunities in Agricultural Occupations
in the Firms Contacted in the Twenty Sample Counties by Main Product or Service
Categories**

Main Product or Service Categories	A Total	B Employed per firm			C			Number Persons			F Total Annual Replacement Opportunities Over next five years ¹	
		Range	Mean	Median	Mode	Increase over next five years	Annual Increase over next five years	E Annual Replacement Opportunities Over next five years ¹				
								D	E			
Agricultural Chemical Manuf. and Wholesales	352	1-14.9	17.0	8	5	121	24	10	34	17		
Dairy Products Manuf. and Distributors	357	2-113	15.0	10	11	35	7	10				
Cotton Processing, Sales and Warehousing	173	1-25	6.4	5	5	6	1	5				
Farm Mach. and Equip. Retail Sales and Service	622	3-22	8.2	8	8	96	19	8	27			

¹ Three percent of column A based on productive life factor of forty years
² Column D plus E

Table 11 (continued)

Main Product or Service Categories	Number Persons						F Total Annual Replacement Opportunities over next five years		
	A		B		C	E			
	Total	Range	Mean	Median	Mode	Annual Increase over next five years			
Farm Service	115	1-20	5.6	3	2	10	2	3	5
Farm Supply Retail Stores	492	1-32	5.2	3	2	65	13	9	22
Feed Manuf. and Wholesales	315	1-106	11.6	6	6	63	12	9	21
Flower Production and Sales	449	1-8	2.7	2	2	24	4	1	5
Food Processing and Dist.	64	1-19	4.3	3	2	10	2	2	4
Livestock Sales and Ser ice	351	1-12	4.2	2	2	49	9	10	19
Lumber and Wood Products	188	1-80	7.5	4	2	51	10	5	15
									55

Table 11 (continued)

Main Product or Service Categories	Number Persons						Total Annual Replacement Opportunities
	A			B	C	E	
	Total	Range	Employed per firm	Increase over next five years	Annual Increase over next five years	Annual Opportunities over next five years	
			Median	Mode			
Meat Processing and Wholesales	149	1-32	6.8	5	4	59	11
Nursery Production, Sales and Landscaping Services	213	1-60	7.6	4	4	59	11
Ornamental Plant Service and Turf Care	92	1-15	3.6	2	2	25	5
Pest Control Service	64	1-15	5.8	5	4	32	6
Poultry and Poultry Processing and Sales	208	1-20	7.5	7	6	27	5
Totals	4,204					732	141
							91
							232

Table 12. Extent of Full-Time and Part-Time Employment Opportunities in Off-Farm Agricultural Occupations By State and Federal Government Agencies, Auburn University, and the State Department of Agriculture and Industries by Service Categories

Service Categories	Number Persons					E Total Annual Opportunities ²
	A Currently Employed	B Expected Increase in five years	C Annual Increase over next five years	D Annual Replacement Opportunities ¹	E Annual Opportunities ²	
Education	685	116	23	20	43	
Education and Research	223	28	5	6	11	
Finance and Credit	99	0	0	3	3	
Regulatory	424	83	16	12	28	
Service	<u>1,050</u>	<u>19</u>	<u>9</u>	<u>31</u>	<u>40</u>	
Total	2,481	276	53	72	125	

¹ Three per cent of column A.

² Column C plus column D

Table 13. Occupational Characteristics of Full-Time Employees in Agricultural Businesses and Industries Contacted in the Twenty Sample Counties by Main Product or Service Categories

Occupations by Main Product or Service Categories	Expressed annual turn over by employers ¹	Monthly Salary ²		
		Start Range	Median	Top Range
Agricultural Chemical Manufacturers and Wholesalers				
General Manager	L	450-750	550	450-850
Plant Superintendent	L	350-850	550	450-650
Sales Manager	•••••	•••••	•••••	•••••
Agronomists	•••••	•••••	•••••	•••••
Technical Fieldman	•••••	•••••	•••••	•••••
Editorial Director	•••••	•••••	•••••	•••••
Plant Supervisor	L	250-750	350	350-850
Fertilizer Salesman	H to L	250-650	350	350-850
Insecticide and Herbicide Salesman	M to L	•••••	•••••	•••••
Plant Office Clerk	M	250-550	300	450-650
Warehouse Stock Clerk	H to L	100-350	200	100-450

1 H denotes high, one employee in one to four years;
M denotes medium, one employee in five to ten years;

L denotes low, one employee in ten or more years.

2 Some salaries indicate commissions and bonuses

Note: Omissions in table (••••) indicate data either not available or insufficient to report.

Table 13 (continued)

Occupations by Main Product or Service Category	Expressed annual turn over by employers	Monthly Salary			Top Range	Median
		Start	Range	Median		
Agricultural Chemical Manufacturers and Wholesalers (continued)						
Milkwright	L	•••••	150-250	200	••••• 150-350	250
Warehouse Serviceman	L	•••••	150-250	200	••••• 150-350	250
Dairy Products Manufacturers and Distributors						
General Plant Manager	M to L	350-850	550	350-850	650	
Dairy Plant Supervisor	M to L	350-550	400	450-850	700	
Route Supervisor	•••••	•••••	•••••	•••••	•••••	
Dairy Technologist	H to L	350-450	350	350-650	500	
Dairy Plant Fieldman	L	•••••	•••••	•••••	•••••	
Vulc Tank Truck Driver	M	150-350	250	250-650	450	
Dairy Products Salesman	H to L	250-450	350	350-850	550	
Dairy Plant Worker	H to M	150-350	250	250-450	350	
Cotton Processing, Sales and Warehousing						
Gin and Warehouse Manager	L	350-850	450	350-850	500	
Cotton Fieldman	•••••	•••••	•••••	•••••	•••••	59
Cotton Buyer	•••••	•••••	•••••	•••••	•••••	•••••
Gin and Warehouse Bookkeeper	•••••	•••••	•••••	•••••	•••••	•••••

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual turn over by employers	Monthly Salary			Top Range	Median
		Start Range	Median	Top Range		
Cotton Processing, Sales and Warehousing (continued)						
Gin Operator	•••••	•••••	•••••	•••••	•••••	•••••
Ginwright	•••••	•••••	•••••	•••••	•••••	•••••
Ginner	L	150-250	200	250-350	300	300
Warehouseman	•••••	•••••	•••••	•••••	•••••	•••••
Farm Machinery Retail Sales and Service						
General Manager	L	350-650	400	450-850	600	600
Farm Machinery Service Center Manager	M to L	250-650	300	250-750	450	450
Farm Machinery Parts Manager	H to L	250-450	300	250-850	450	450
Farm Machinery Salesman	H to L	250-550	400	250-850	600	600
Farm Machinery Parts Clerk	H to L	150-450	200	200-750	350	350
Farm Machinery Business Bookkeeper	H to L	150-450	250	250-650	350	350
Skilled						
Farm Machinery Mechanic	H to L	200-350	250	250-650	400	400
Semi-skilled						
Farm Machinery Field Mechanic	•••••	100-250	200	100-350	250	250
Farm Machinery Field Mechanic	H	250-350	160	250-450	300	300

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual turn over by employers	Monthly Salary				
		Range	Start	Median	Top Range	Median
Farm Supply and Equipment Retail Stores						
Farm Supply and Equipment Store Manager	H to L	300-850	350	350-850	550	550
Farm Supply and Equipment Store Fieldman	•••••	•••••	•••••	•••••	•••••	•••••
Farm Supplies and Equipment Salesman	H to M	200-650	300	250-850	450	450
Farm Supply Store Sales Clerk	H to L	200-550	250	250-650	350	350
Farm Supply Store Bookkeeper	M	250-350	250	350-550	450	450
Farm Equipment Parts Clerk	•••••	•••••	•••••	•••••	•••••	•••••
Farm Supply Store Stock Clerk	•••••	250-550	300	250-550	350	350
Farm Equipment and Facilities Maintenance Man	H	250-450	300	250-550	400	400
Skilled						
Farm Supply Store Serviceman	H to L	250-350	250	250-550	300	300
Semi-skilled						
Farm Supply Store Serviceman	H to L	100-350	160	100-450	250	250
Feed Manufacturers and Wholesalers						
General Manager	H to L	350-850	400	350-850	500	500
Mill Manager	H to L	250-450	250	250-750	400	400
Mill Supervisor	H to L	250-550	300	250-850	450	450

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual turn over by employers	Monthly Salary			Top Range	Median	Median
		Start		Range			
		Range	Median	Median			
Feed Manufacturers and Wholesalers (continued)							
Feed Salesman	H to L	300-850	400	350-850	600	600	600
Warehouse Stock Clerk	•••••	•••••	•••	•••••	•••••	•••••	•••••
Feed Mill Operator	H to L	100-450	200	150-550	300	300	300
Feed Mixer Operator	•••••	•••••	•••	•••••	•••••	•••••	•••••
Millwright	•••••	•••••	•••	•••••	•••••	•••••	•••••
Feed Mill Serviceman	H to M	100-250	200	150-450	250	250	250
Farm Service							
Feeding Unit Manager	•••••	•••••	•••	•••••	•••••	•••••	•••••
Mobile Feed Mill Operator	•••••	•••••	•••	•••••	•••••	•••••	•••••
Facilities and Maintenance Man	•••••	•••••	•••	•••••	•••••	•••••	•••••
Poultry Fieldman	•••••	•••••	•••	•••••	•••••	•••••	•••••
Bulk Feed Truck Driver	•••••	•••••	•••	•••••	•••••	•••••	•••••
Farm Custom Work Business Manager	•••••	•••••	•••	•••••	•••••	•••••	•••••
Custom Farm Machine Operator	•••••	•••••	•••	•••••	•••••	•••••	•••••
Bulk Fertilizer Spreader Operator	•••••	•••••	•••	•••••	•••••	•••••	•••••
Liquid Fertilizer Applicator Machine Operator	•••••	•••••	•••	•••••	•••••	•••••	•••••
Seed Cleaner Operator	•••••	•••••	•••	•••••	•••••	•••••	•••••
Rural Electrification Advisor	•••••	•••••	•••	•••••	•••••	•••••	•••••

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual turn over by employers	Monthly Salary				Top Median
		Start Range		Median	Range	
		Start	Range	Median	Range	
Flower Production and Sales						
Florists	H to L	200-350	200	250-550	250	250
Food Processing and Distribution						
General Manager	M to L	350-550	350	450-650	500	500
Plant Supervisor	L	250-550	300	250-650	400	400
Produce Buyer	M to L	250-150	250	350-550	350	350
Machine Operators	M	100-250	160	100-450	250	250
Graders	L	150-350	200	250-450	350	350
Millwright	•••••	150-250	200	250-350	300	300
Livestock Sales and Service						
Stockyard Manager	•••••	250-650	400	250-750	500	500
Artificial Inseminator	L	•••••	•••	•••••	•••	•••
Veterinarian	•••••	•••••	•••	•••••	•••	•••
Veterinarian Assistant	•••••	200-350	300	250-450	350	350
Auctioneer	•••••	250-450	350	•••••	•••	•••
Livestock Buyer	•••••	•••••	•••	250-550	400	400
Stockyard Clerk	•••••	•••••	•••	•••••	•••	•••
Livestock Grader	•••••	•••••	•••	•••••	•••	•••

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual turn over by employers	Monthly Salary			
		Start		Median	Top
		Range	Median	Range	Median
Livestock Sales and Service (continued)					
Stockyard Weighmaster	H	100-250	160	150-350	350
Stockyard Sorter	H	150-350	200	150-450	300
Livestock Truck Driver	H				
Lumber and Wood Products					
Pulpwood Yard Manager	H	.....	...	....	...
Sawmill Manager	.....	.....	...	....	...
Pole Yard Manager	.....	350-550	450	350-850	650
Forster	H to M	350-550	450	350-650	500
Pulpwood Yard Supervisor	L	350-550	450	350-550	400
Woods Supervisor	.....	.....	...	....	...
Pole Treating Plant Supervisor	.....	.....	...	....	...
Timber Buyer	.....	.....	...	....	...
Timber Cruiser	.....	250-450	300	350-550	400
Log Scaler	.....	.....	...	....	...
Millwright	L	150-450	250	250-450	350
Rolling Equipment Operator	L	150-450	250	250-450	350
Lumber Checker	.....	.....	...	....	...
Lumber Grader	.....	.....	...	....	...
Pole Inspector	.....	.....	...	....	...
Stationary Equipment Operator	.....	.....	...	....	...
Timber Marker	L	250-350	300	350-550	400

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual return over by employers	Monthly Salary (\$.)		
		Range	Median	Median
Meat Processing and Wholesalers				
Plant Manager	L	350-850	500	450-850
Plant Supervisor	L	350-750	500	450-850
Livestock Buyer	M to L	350-650	400	450-650
Meat Salesman	M to L	350-650	450	450-850
Meat Cutter	H to L	200-450	400	200-550
Livestock Grader	•••••	•••••	•••	•••••
Locker Plant Worker	H	150-450	250	250-450
Nursery Production, Sales and Landscaping Service				
Nursery Manager	M to L	300-850	400	350-850
Landscape Gardener	M to L	250-550	400	350-850
Nursery Production Supervisor	M to L	250-550	350	350-750
Landscape Architect	•••••	•••••	•••	•••••
Nursery Stock Salesman	H to L	250-450	300	350-750
Propagator	M to L	200-350	300	250-650
Nursery Production Worker	H to L	100-350	160	200-350
Equipment Operator	•••••	•••••	•••	•••••

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual turn over by employers	Monthly Salary			Top Range Median Median
		Start		Top	
		Range	Median	Range	
Ornamental Plant Service and Turf Care					
Landscape Gardener	H to L	200-850	300	350-850	450
Green Keeper	M to L	250-450	300	350-550	400
Park Ranger	H to M	250-350	300	250-350	300
Tree Surgeon	H to M	150-450	250	250-550	400
Pest Control Service					
Pest Control Business Manager	•••••	•••••	•••	•••••	•••
Exterminator	H to L	250-450	300	350-550	400
Pest Control Route Salesman	M	250-650	450	450-850	650
Poultry and Poultry Product Processing and Sales					
Hatchery Manager	L	350-650	400	450-750	600
Egg Processing Plant Manager	•••••	350-650	400	450-750	450
Poultry Meat Processing Manager	M	350-450	400	650-750	700
Poultry Fieldman	•••••	•••••	•••	•••••	•••
Hatchery Supervisor	•••••	250-350	250	250-450	300
Poultry Meat Processing Plant Supervisor	L	250-550	300	350-650	450
Poultry and Egg Salesman	•••••	•••••	•••	•••••	•••
Poultry and Egg Buyer	•••••	•••••	•••	•••••	66

Table 13 (continued)

Occupations by Main Product or Service Categories	Expressed annual turn over by employers	Monthly Salary			Top Range	Median	Median
		Start	Range	Median			
Poultry and Poultry Product Processing and Sales (continued)							
Hatchery Worker		150-450	200	250-450	300		
Egg Candler		100-350	200	200-450	300		
Live Poultry Truck Driver	•••••	•••••	•••••	•••••	•••••	•••••	•••••

Table 14. Occupational Characteristics of Full-time Employees in Off-Farm Agricultural Occupations
in the State and Federal Government Agencies in the Twenty Sample Counties, Auburn
University, and the State Department of Agriculture and Industries by Service Categories

Occupations by Service Categories	Expressed annual turn over by employers ¹	Monthly Salary			Top Range Median Median
		Start	Range	Median	
		Start	Range	Median	
Education					
County Agricultural Agents	L	•••••	•••••	•••••	•••••
Extension Supervisors and Specialist	M to L	•••••	•••••	•••••	•••••
Extension Home Agents	M to L	•••••	•••••	•••••	•••••
Vocational Agriculture Teachers	M to L	•••••	•••••	•••••	•••••
Vocational Agriculture Supervisors and Specialist	M to L	•••••	•••••	•••••	•••••
Agricultural Journalist	M to L	350-750	500	750-850	850
Education and Research					
Agronomist	H to L	350-550	450	650-850	800
Veterinarian	M to L	550-850	750	750-850	850
Plant Scientist	M to L	450-750	550	850-850	850
Entomologist	•••••	•••••	•••••	•••••	•••••

1 H denotes high, one employee in one to four;
M denotes medium, one employee in five to ten years;
L denotes low, one employee ten or more years.

Note: Omissions in tables (••••) indicate data either not available or
insufficient to report.

Table 14 (continued)

Occupations by Service Categories	Expressed annual turn over by employers	Monthly Salary			Top Range	Median	Median
		Start Range	Median	Top Range			
Education and Research (continued)							
Agricultural Economists	L	350-850	600	550-850	800		
Agricultural Engineering	H	450-550	500	850-850	850		
Animal Scientist	H to M	350-750	550	550-850	750		
Soil Scientist	H to M	350-550	450	850-850	850		
Wildlife Biologist	•••••	250-550	300	250-850	700		
Forester	H to L	150-850	550	250-850	800		
Dairy Technologist	L	250-350	300	350-450	400		
Finance and Credit							
Federal Land Bank Manager	•••••	450-850	600	650-850	800		
Federal Land Bank Appraisal	•••••	450-550	500	850-850	850		
FHA Supervisor	L	550-650	600	850-850	850		
Regulatory							
Agricultural Chemical Inspector	M	350-450	400	350-450	400		
Gin and Warehouse Inspector	L	250-350	300	350-450	400		
Grain Sampler	•••••	•••••	•••	•••••	•••		
Lands Inspector	M	350-650	500	450-850	650		
Livestock Inspector	L	250-650	450	350-750	550		
Milk Marketing Examiner	M	350-450	400	450-550	500		

Table 14 (continued)

Occupations by Service Categories	Expressed annual turn over by Employers	Monthly Salary			Top Range	Median
		Start Range	Median	End Range		
Regulatory (continued)						
Plant Industry Inspector	H to L	250-850	400	2,50-850	600	600
Poultry Inspector	•••••	•••••	•••••	•••••	•••••	•••••
Poultry Products Inspector	•••••	•••••	•••••	•••••	•••••	•••••
Produce Inspector	H	350-850	650	450-850	700	700
Produce Analyst	H to L	250-650	450	350-850	600	600
Seed Analyst	•••••	•••••	•••••	•••••	•••••	•••••
Seed Technologist	M to L	550-850	750	750-850	850	850
Veterinarian	L	350-750	550	650-850	800	800
Wildlife Conservation Officer	•••••	•••••	•••••	•••••	•••••	•••••
Agricultural Journalist	L	350-450	400	450-550	500	500
ASCS Compliance Fieldman	•••••	•••••	•••••	•••••	•••••	•••••
ASCS District Fieldman	•••••	•••••	•••••	•••••	•••••	•••••
ASCS County Fieldman	•••••	•••••	•••••	•••••	•••••	•••••
ASCS County Office Manager	M	350-850	600	450-850	650	650
ASCS Program Specialist						
Service						
Plant Industry Inspector	M to L	250-850	400	250-850	600	600
Poultry Inspector	•••••	•••••	•••••	•••••	•••••	•••••
Poultry Products Inspector	•••••	•••••	•••••	•••••	•••••	•••••
Seed Analyst	H to L	250-650	450	350-850	600	600

Table 14 (continued)

Occupations by Service Categories	Expressed annual turn over by employers	Monthly Salary			Top Range	Median	Median
		Start Range	Median	Top Median			
Seed Technologist	M	•••••	•••••	•••••	650-850	800	800
Veterinarian Assistant	L	•••••	•••••	•••••	650-850	800	800
Wildlife Conservation Officer	L	•••••	•••••	•••••	650-850	800	800
ASCS Compliance Fieldman	H	•••••	•••••	•••••	650-850	800	800
ASCS District Fieldman	M	•••••	•••••	•••••	650-850	800	800
ASCS County Fieldman	M to L	•••••	•••••	•••••	650-850	800	800
ASCS County Office Manager	H to L	•••••	•••••	•••••	650-850	800	800
ASCS Program Specialist	M to L	•••••	•••••	•••••	650-850	800	800
PCA Office Manager	L	•••••	•••••	•••••	650-850	800	800
PCA Field Representative	M	•••••	•••••	•••••	650-850	800	800
Crop Insurance Fieldman	M	•••••	•••••	•••••	650-850	800	800
Cotton Classers	M	•••••	•••••	•••••	650-850	800	800
Forest Patrolman	M	•••••	•••••	•••••	650-850	800	800
Forest Towerman	M	•••••	•••••	•••••	650-850	800	800
Forest Rangers	M	•••••	•••••	•••••	650-850	800	800
Livestock Market Analyst	M	•••••	•••••	•••••	650-850	800	800
Market News Analyst	M	•••••	•••••	•••••	650-850	800	800
Park Ranger	L	•••••	•••••	•••••	650-850	800	800
Soil Conservationist	L	•••••	•••••	•••••	650-850	800	800
Soil Conservation Technician	L	•••••	•••••	•••••	650-850	800	800

Table 15. Occupational Characteristics of Part-Time Employees in Businesses and Industries in the Twenty Sample Counties by Main Product or Service Categories

Occupations by Main Product or Service Categories	Mean months of employment	Expressed annual turn over by employers ¹	Monthly Salary ²		
			Start Range	Median	Top Range
			Median	Median	Median
<i>Agricultural Chemical Manufacturers and Wholesales</i>					
Skilled	3.5	H	150-250	200	150-450
Warehouse Serviceman					300
Semi-skilled	4.0	H	150-350	250	250-450
Warehouse Serviceman					350
<i>Dairy Products Manufacturers and Distributors</i>					
Dairy Plant Worker	4.0	.....	150-350	250	250-450
					350

¹ H denotes high, one employee in one to four years; M denotes medium, one employee in five to ten years; L denotes low, one employee in ten or more years

² Some salaries indicate bonuses and commissions

Note: Omissions in table (....) indicate data either not available or insufficient to report

Table 15 (continued)

Occupations by Main Product or Service Categories	Mean Months of employment	Expressed annual turn over by employers	Monthly Salary		
			Start Range	Median	Top Range Median
Cotton Processing, Sales and Warehousing					
Gin and Warehouse Bookkeeper	3.5	H to M	150-350	250	250-450 150-450 400
Gin Operator	3.5	H to L	150-550	250	
Ginwright	6.0	L	150-450	300	350-650 500
Ginner	3.8	H	100-350	200	100-350 300
Warehouseman	3.0	*****	150-250	200	150-350 250
Farm Machinery Retail Sales and Service					
Farm Machinery Parts Clerk	3.5	*****	150-250	200	250-350 250-550 400
Farm Machinery Mechanic	5.1	H to M	100-350	200	
Farm Supply and Equipment Retail Stores					
Farm Supply Store Sales Clerk	4.0	H	100-350	200	150-450 100-450 250
Farm Supply Store Serviceman	5.1	H to L	100-350	160	
Feed Manufacturers and Wholesalers					
Feed Mill Operator	7.0	*****	100-450	200	150-550 250-450 300
Feed Mill Serviceman	4.0	H	150-250	200	350 350 73

Table 15 (continued)

Occupations by Main Product or Service Categories	Mean months of employment	Expressed annual turn over by employers	Monthly Salary		
			Start Range	Median	Top Range
Farm Service		•••••	100-250	160	150-250 200
Bulk Fertilizer Spreader Operator	3.0				
Flower Production and Sales	5.0	H	100-250	100	100-450 200
Florists					
Livestock Sales and Service					
Livestock Buyer	5.3	H	150-250	200	150-350 250
Stockyard Clerk	5.6	H	100-350	200	100-350 200
Stockyard Weighmaster	2.5	•••••	250-450	350	250-650 450
Stockyard Sorter	9.7	H	100-250	160	100-350 200
Nursery Production, Sales and Landscaping Service					
Nursery Stock Salesman	3.0		250-450	350	450-550 500
Propagator	12.0	H	100-250	160	250-350 300
Skilled					
Nursery Production Worker	5.5	H	150-250	200	150-350 250

Table 15 (continued)

Occupations by Main Product or Service Categories	Mean months of employment	Expressed annual turn over by employers	Monthly Salary		
			Start.	Median	Range
Nursery Production, Sales and Landscaping Service (continued)					
Semi-skilled					
Nursery Production Worker	5.0	H	150-250	200	150-350
Ornamental Plant Service and Turf Care	4.0	.....	100-250	160	150-350
Landscape Gardener					
Poultry and Poultry Product Processing and Sales	9.0	.....	100-250	160	100-350
Egg Candler					

Table 16. Occupational Characteristics of Part-Time Employees in Off-Farm Agricultural Occupations in Agencies in the Twenty Counties, Auburn University, and the State Department of Agricultural and Industries by Service Categories

Occupations by Service Categories	Mean Months of Employment	Expressed annual turn over by employers ¹	Monthly Salary		
			Start Range	Median	Top Range Median
Finance and Credit					
Regulatory					
Plant Industry Inspector	6.0	H to L	250-350	250	250-450
Produce Inspector	4.0	H	350-450	400	450-550
Veterinarian Assistant	2.0	H	450-550	500	450-550
ASCS Performance Checker	3.0	•••••	250-350	300	350-450
Crop Insurance Fieldman	•••	M to L	350-450	400	350-450
Cotton Classers	•••	L	350-650	500	350-650

1 H denotes high, one employee in one to four years;
M denotes medium, one employee in five to ten years;
L denotes low, one employee ten or more years.

Note: Omissions in tables (...) indicate data either not available or insufficient to report

Filling Vacancies in Off-farm Agricultural Occupations. Table 17 and 18 reflect data relative to filling vacancies in agricultural occupations. Data in Table 17 indicate degrees of difficulty in filling vacancies as expressed by the employers interviewed in the products or service categories for the various occupations. It will be noted that in general the more technical the occupation the greater the difficulty in filling the vacancy. This is true with the exception of managerial positions.

It is shown in Table 17 that the recruitment contacts used by most of the employees were recommendations of present employees and friends, and direct contact with persons in similar businesses.

Table 17. Degree of Difficulty in Filling Vacancies in Off-Farm Agricultural Occupations as Expressed by Employers Interviewed in the Business and Industries

Headnote:

- | | |
|----------------------------------|-----------------------|
| 1. No Difficulty | 3. Great difficulty |
| 2. Some, but not much difficulty | 4. Extreme difficulty |

Occupations by Main Product or Service Categories	Number of employers expressing (See headnote for degree)					Total
	1	2	3	4		
Agricultural Chemical Manufacturers and Wholesales						
General Manager	5	11	5	1		22
Sales Manager	7	6	4	0		17
Warehouse Stock Clerk	5	5	2	0		12
Warehouse Serviceman	7	3	2	0		12
Dairy Products Manufacturers and Distributors						
General Plant Manager	3	4	2	0		9
Dairy Plant Supervisor	4	2	1	0		7
Bulk Tank Truck Driver	4	1	0	0		5
Dairy Products Salesman	3	5	2	0		10
Dairy Plant Worker	4	6	1	2		13
Cotton Processing, Sales and Warehousing						
Gin and Warehouse Manager	0	8	1	0		9
Cotton Buyer	0	2	4	1		7
Gin and Warehouse Bookkeeper	1	8	1	0		10
Gin Operator	2	2	3	4		11
Ginwright	5	2	3	0		10
Ginner	4	11	1	0		15
Warehouseman	1	6	3	0		10

Table 17 (continued)

Occupations by Main Product or Service Categories	Number of employers expressing (See headnote for degree)				
	1	2	3	4	Total
Farm Machinery Retail Sales and Service					
General Manager	0	3	7	1	11
Farm Machinery Salesman	3	11	4	2	20
Farm Machinery Parts Clerk	2	13	9	4	28
Farm Machinery Business Book-keeper	1	5	2	0	8
Farm Machinery Mechanic	6	7	18	17	48
Farm Machinery Field Mechanic	3	1	6	0	10
Farm Supply and Equipment Retail Stores					
Farm Supply and Equipment Store Manager	1	12	12	1	26
Farm Supplies and Equipment Salesman	4	13	5	0	22
Farm Supply Store Sales Clerk	8	12	4	0	24
Farm Supply Store Bookkeeper	0	5	3	0	8
Farm Supply Store Serviceman	12	12	0	0	24
Feed Manufacturers and Wholesalers					
Mill Manager	5	14	7	1	27
Feed Salesman	0	4	1	0	5
Feed Mill Operator	1	12	6	0	19
Feed Mill Serviceman	14	14	0	0	28
Farm Service					
Poultry Fieldman	0	2	2	1	5
Custom Farm Machine Operator	0	2	4	1	7

Table 17 (continued)

Occupations by Main Product or Service Categories	Number of employers expressing (See headnote for degree)				
	1	2	3	4	Total
Flower Production and Sales					
Florists	1	2	7	8	18
Food Processing and Distribution					
General Manager	6	2	1	0	9
Plant Supervisor	1	2	4	0	7
Produce Buyer	0	5	1	1	7
Machine Operators	5	1	0	0	6
Graders	0	12	3	0	15
Livestock Sales and Service					
Stockyard Manager	3	2	1	0	6
Artificial Inseminator	0	2	2	0	4
Livestock Buyer	0	3	3	2	8
Stockyard Sorter	1	7	7	2	17
Livestock Truck Driver	2	2	0	0	4
Lumber and Wood Products					
Pulpwood Yard Manager	2	2	4	1	9
Sawmill Manager	2	8	4	0	14
Forester	6	4	1	1	12
Pulpwood Yard Supervisor	2	4	5	1	12
Timber Cruiser	2	3	3	0	8
Millwright	0	1	8	0	9
Rolling Equipment Operator					
Pole Inspector	1	4	2	0	7
Stationary Equipment Operator	5	8	13	0	26
Meat Processing and Wholesales					
Plant Manager	0	2	3	0	5
Plant Supervisor	0	1	4	0	5

Table 17 (continued)

Occupations by Main Product or Service Categories	Number of employers expressing (See headnote for degree)				
	1	2	3	4	Total
Meat Processing and Wholesales (continued)					
Meat Salesman	1	3	4	0	8
Meat Cutter	0	4	7	0	11
Locker Plant Worker	2	5	8	0	15
Nursery Production, Sales and Landscaping Service					
Nursery Manager	2	4	6	4	16
Landscape Gardener	0	13	15	3	31
Propagator	0	2	6	1	9
Nursery Production Worker	3	4	5	2	14
Ornamental Plant Service and Turf Care					
Green Keeper	0	0	3	4	7
Tree Surgeon	0	0	5	3	8
Exterminator	1	3	7	0	11
Pest Control Route Salesman	3	3	0	1	7
Poultry and Poultry Product Processing and Sales					
Hatchery Manager	1	4	3	0	8
Egg Processing Plant Manager	1	4	0	0	5
Hatchery Supervisor	0	4	2	0	6
Poultry Meat Processing Plant Supervisor	1	3	1	0	5
Poultry and Egg Buyer	1	2	2	0	5
Hatchery Worker	1	4	7	0	12
Egg Candler	6	2	2	0	10
Poultry Meat Processor	0	9	1	0	10
Live Poultry Truck Driver	6	3	3	0	12

Table 18. Recruitment Procedures Used by the Contacted Firms to Fill Vacancies in Agricultural Occupations

Contacts	Number of firms using	Per cent of total firms using ¹
State Employment Service	67	15
College Employment Bureaus	34	7
High Schools	87	19
Advertisements in Newspapers	32	7
Advertisements in Trade Journals	8	1
Direct contact with persons in similar businesses	291	64
Recommendation of friends	326	71
Recommendations of present employees	428	94
Others	10	1

1 Percentage base: 455 businesses

SUMMARY OF FINDINGS

1. There were eighteen different types of off-farm agricultural businesses, industries and services operating in the state.
2. There were 5,443 agricultural businesses, industries and services operating in the state.
3. The greatest number of firms operating in the twenty sample counties were in the main product or service categories of livestock sales and services; flower production and sales; farm supply retail stores; lumber and wood products; and nursery production, sales and landscaping services.
4. There was no definite recognizable pattern as to the number of businesses, industries or services operating in the individual counties. There was however a small degree of variation in the numbers of businesses, industries and services in the various main product or service categories in the non-metropolis counties.
5. The businesses, industries and services employing the largest total number of persons in the firms contacted were, in descending order, agricultural chemical manufacturers and wholesales, lumber and wood products, dairy products manufacturers and distributors, meat processing and wholesales, feed manufacturers and wholesales, poultry and poultry products processing and sales and farm supply retail stores.
6. Of the 16,983 persons employed by firms contacted in all main products or service categories, 4,204 or 20 per cent were engaged in off-farm agricultural occupations.
7. There were approximately 2,481 persons employed in the federal and state government agricultural agencies in the state.
8. The main product or service category firms contacted with more than 75 per cent of the total employees engaged in an off-farm agricultural occupation were, in descending order, farm machinery and equipment retail sales and service; cotton processing, sales and warehousing; and farm supply retail stores.
9. The main product or service category firms contacted with more than 50 but less than 75 per cent of the total employees engaged in off-farm agricultural occupations were, in descending order, farm service; flower production and sales; livestock sales and service; nursery production, sales and landscaping service; and pest control service.
10. The main products or service category firms contacted with less than 20 per cent of the total employees engaged in off-farm agricultural occupations were, in descending order, food processing

and distribution, dairy products manufacturers and distributors, meat processing and wholesales, agricultural chemical manufacturers and wholesales and lumber and wood products.

11. The government agency employing the largest number of persons in off-farm agricultural occupation was the agricultural service function of the State Department of Agriculture and Industries.
12. There were 184 different off-farm agricultural occupations found in the twenty sample counties.
13. In general, employers expressed a higher degree of annual turn over for employees in the semi-skilled occupations.
14. In general, part-time employment was prevalent in those businesses, industries and services contacted that provide main products or services on a seasonal basis.
15. In general, employees contacted expressed a high degree of annual turn over for part-time employees.
16. Using a productive life factor of forty years and the data collected from employers contacted, a projected eight per cent increase can be expected in the number of opportunities available in off-farm agricultural occupations five years hence in the sample counties.
17. Data collected indicate very little (if any) increase in employment opportunities in occupation at the semi-skilled level in the sample counties.

CONCLUSIONS

On the basis of the data collected, the following conclusions drawn:

1. Based on the 5,447 businesses, industries and services operating in the state and the percentage figures of payroll firms in the sample counties, an estimate of payroll firms in the state associated with agriculture would be 4,483.¹
2. Based on the mean number of persons employed by firms associated with agriculture in the sample counties and the total estimated payroll businesses of 4,483, an estimated persons employed in payroll firms would be 49,447 excluding those in farm machinery manufacturers and wholesales.²

¹See Appendix B, page 89

²See Appendix B, page 89

3. Based on the expressed opinions of employees, 20 per cent of the total persons employed in businesses, industries and services associated with agriculture need an agricultural background or training.
4. There are approximately 184 different off-farm agricultural occupations in the state.
5. Based on the model number of employees engaged in off-farm agricultural occupations in the 474 payroll firms plus the number of persons (2,481) employed in state and federal agencies, a conservative estimate of the total number of persons engaged in off-farm agricultural occupations in Alabama would be 19,426.³
6. Based on a productive life factor of forty years (three per cent death and retirement rate) and the annual replacement opportunity percentage derived from the firms contacted in the sample counties, a total annual replacement estimate five years hence for persons engaged in agricultural occupations in firms in the state associated with agriculture would be 1,359.
7. Based on a productive life factor of forty years (three per cent death and retirement rate) the total annual replacement opportunities in off-farm agricultural occupations for state and federal government agencies would be approximately 125 persons.
8. Business, industries and services have no definite procedure for locating and recruiting new employees in agricultural occupations.

IMPLICATIONS

Based on the data and conclusions drawn, the following implications seem appropriate:

1. Vocational agriculture should broaden its instructional program to include education for off-farm agricultural occupations.
2. Vocational agriculture should strive to improve its communications with businesses and industries that provide supplies and services to farmers and other producers of plants and animals.
3. Vocational agriculture should include instruction to acquaint students with the existing employment opportunities, occupational

³See Appendix B, page 89

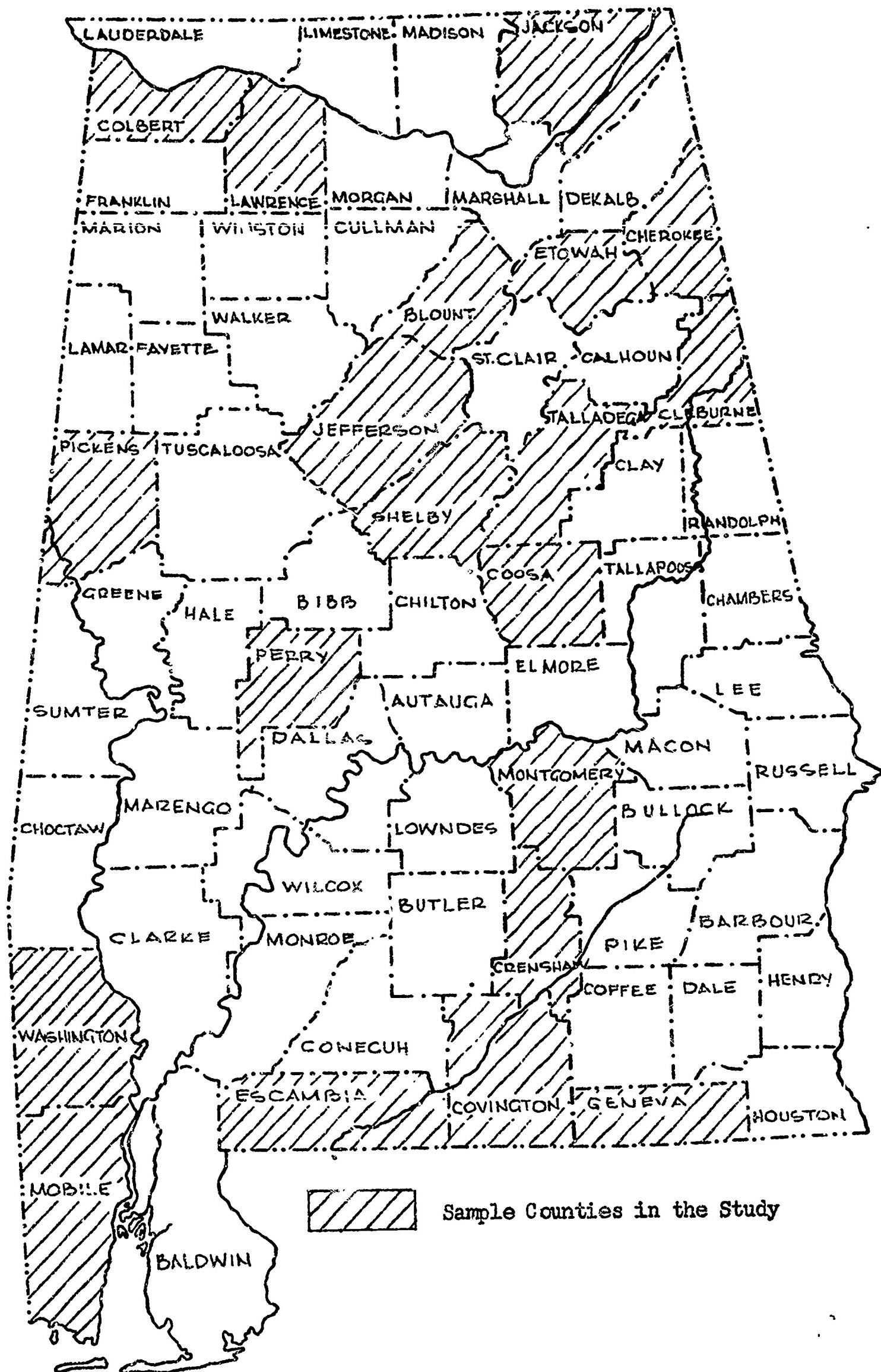
characteristics and the pre-employment educational needs for off-farm agricultural occupations. The instruction should be in terms of actual well-defined occupations.

4. Local department of vocational agriculture should determine the number of employment opportunities available in their service area.
5. Teachers of vocational agriculture should assume the responsibility in the placement of high school vocational agriculture graduates.

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APPENDIX A



APPENDIX 3

**ESTIMATED NUMBER OF AGRICULTURAL, PAYROLL, BUSINESSES AND WORKERS EMPLOYED IN THOSE BUSINESSES IN ALABAMA BY
MAIN PRODUCT OR SERVICE CATEGORIES USING PER CENT OF PAYROLL FIRM AND MEAN NUMBER OF PERSONS
EMPLOYED BY BUSINESSES IN THE TWENTY SAMPLE COUNTIES AS A BASE***

Main Product or Service	Total Number in State	Estimated Number of Workers Payroll in Firms Based on Per cent in Sample	Mean Number of Workers in Firms in the Sample	Estimated Number of Workers in Firms in the State **
Agricultural Chemical Manufacturers and Wholesalers	175	175	54	9,540
Dairy Products Manufacturers and Distributors	189	189	21	3,969
Cotton Processing, Sales and Warehousing	385	369	6	2,144
Farm Machinery and Equipment Retail Sales and Service	277	268	8	2,680
Farm Service	473	435	5	2,175
Farm Supply Retail Stores	746	564	3	1,692
Feed Manufacturers and Wholesalers	288	247	18	4,606
Flower Production and Sales	467	233	3	699
Food Processing and Distribution	197	177	4	708
Livestock Sales and Service	282	222	3	666

* Excludes farm machinery manufacturers and wholesalers

** Includes full-time and part-time

APPENDIX B (continued)

Main Product or Service	Total Number in State	Estimated Number of Payroll Firms Based on Per cent in Sample	Mean Number in Firms in the Sample	Estimated Number of Workers in Firms in the State	Number of Workers in Firms in the State
Lumber and Wood Products	884	830	19	15,770	2,397
Meat Processing and Wholesale	165	123	19	576	576
Nursery Production, Sales and Landscaping Services	310	288	2	760	760
Ornamental Plant Service and Turf Care	190	190	4	264	264
Pest Control Services	208	132	2	1,267	1,267
Poultry and Poultry Processing and Sales	195	181	7		
Totals	5,443	4,483	19	149,447	149,447

APPENDIX C

ESTIMATED NUMBER OF FULL-TIME AND PART-TIME WORKERS ENGAGED IN OFF-FARM
 AGRICULTURAL OCCUPATIONS IN ALABAMA BY MAIN PRODUCT OR SERVICE
 CATEGORIES USING MODAL NUMBER OF PERSONS EMPLOYED PER
 FIRM AND PERCENTAGE OF PAYROLL FIRMS IN THE TWENTY
 SAMPLE COUNTIES AS A BASE¹

Main Product or Service	Mode Number Persons Em- ployed per Firm	Estimated Number of Payroll Firms in State	Estimated Number of Workers
Agricultural Chemical Manufacturers and Wholesales	5	175	875
Dairy Products Manufacturers and Distributors	11	189	2,079
Cotton Processing, Sales and Warehousing	5	369	1,805
Farm Machinery and Equipment Retail Sales and Service	8	268	2,144
Farm Service	2	435	870
Farm Supply Retail Stores	6	564	1,128
Feed Manufacturers and Wholesales	6	247	1,482
Flower Production and Sales	2	233	466
Food Processing and Distribution	2	177	354
Livestock Sales and Service	2	222	444
Lumber and Wood Products	2	830	1,660
Meat Processing and Wholesales	4	123	492
Nursery Production, Sales and Landscaping Service	4	288	1,152

¹ Excludes government agricultural services and farm machinery manufacturers and wholesales.

APPENDIX C (continued)

Main Product or Service	Mode Number Persons Em- ployed Per Firm	Estimated Number of Payroll Firms in State	Estimated Number of Workers
Ornamental Plant Service and Turf Care	2	190	380
Pest Control Service	4	132	528
Poultry and Fowlry Processing and Sales	6	181	1,086
Totals		4,483	16,945

APPENDIX D

EMPLOYMENT OPPORTUNITIES IN OFF-FARM
AGRICULTURAL OCCUPATIONS

(Interview Schedule I)

Definition:

The term off-farm agricultural occupations or "agri-business and industry" refers to those occupations, businesses and industries that provide supplies and services to individuals in the production of plants and animals. These plants and animals include those used for feed, food, fiber, shelter and pleasure. In attempting to classify the occupations, businesses and industries there are two factors of delimitation: (1) what the worker does is the criterion to use in the classification of the occupation, not where the worker works and (2) "agri-businesses and industries" are those businesses and industries that exist primarily for the purpose of providing supplies and services, either directly or indirectly, to those individuals producing plants and animals.

I. Company (firm, organization, agency or service)

County No. _____

Main product, or service, of the company _____

Percentage of business agricultural oriented _____

Which of the following does the firm perform? (Check all that apply.)

- | | |
|---|---|
| 1. <input type="checkbox"/> Manufacturing | 5. <input type="checkbox"/> Service |
| 2. <input type="checkbox"/> Processing | 6. <input type="checkbox"/> Warehousing |
| 3. <input type="checkbox"/> Purchasing | 7. <input type="checkbox"/> Others |
| 4. <input type="checkbox"/> Sales | Specify _____ |

Position of person interviewed:

- | | |
|--|--|
| 1. <input type="checkbox"/> Owner | 5. <input type="checkbox"/> Sales Manager |
| 2. <input type="checkbox"/> Owner-Manager | 6. <input type="checkbox"/> Office Manager |
| 3. <input type="checkbox"/> Manager (hired) | 7. <input type="checkbox"/> Other |
| 4. <input type="checkbox"/> Personnel Director | Specify _____ |

II. Employees

Total number of persons employed by company

Total number of persons employed full time

Total number of persons employed part time

Total number of persons employed in which an agricultural background or training is desirable _____

Employees in which an agricultural background or training is desirable:

(Enter your county number)

Monthly Salary Code

1.	\$100-150	4.	351-450	7.	651-750
2.	151-250	5.	451-550	8.	751-850
3.	251-350	6.	551-651		851-above

*Level of Employment Code

1. Semi-skilled	4. Sales	7. Service
2. Skilled	5. Supervisor	8. Technical
3. Clerical	6. Manager	9. Professional

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Company recruits replacements and new employees with agricultural background or training through: (Check all that apply.)

- State Employment Service
- College Employment Bureaus
- High Schools
- Advertisements in newspapers
- Advertisements in trade journals
- Direct contact with persons in other similar businesses
- Recommendation of friends
- Recommendation of present employees
- Others (Specify)